Listing of Claims

(Currently Amended) A method of increasing an immune response to an opportunistic infection in an immunocompromised subject, comprising

selecting an immunocompromised subject;

administering to the <u>immunocompromised</u> subject a therapeutically effective amount of an immunostimulatory D oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide prior to or after exposure of the immunocompromised subject to a secondary opportunistic infection; and

evaluating the immune response to the opportunistic infection; thereby increasing the response to the <u>secondary</u> opportunistic infection in the immunocompromised subject.

- (Currently Amended) The method of claim 1, wherein the subject is immunocompromised as a result of an infection with a lentivirus, and wherein the method comprises administering a therapeutically effective amount of an immunostimulatory-D oligodeoxynucleotide to the subject.
- 3. (Original) The method of claim 2, wherein the lentivirus is a human immunodeficiency virus or a simian immunodeficiency virus.
 - (Original) The method of claim 2, wherein the lentivirus is HIV-1.
 - 5. (Original) The method of claim 2, wherein the lentivirus is HIV-2.
- (Original) The method of claim 1, wherein the subject has acquired immune deficiency syndrome (AIDS).

Page 2 of 12

- 7. (Previously Presented) The method of claim 1, wherein the oligodeoxynucleotide is at least 16 nucleotides in length and comprises a sequence represented by the following formula:
 - 5' X₁X₂X₃ Pu₁ Py₂ CpG Pu₃ Py₄ X₄X₅X₆(W)_M (G)_N-3' (SEQ ID NOs: 22-98)

wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Pv is a pyrimidine nucleotide, Pv and Pv are any nucleotide, Pv is any integer from 0 to 10, and Pv is any integer from 4 to 10.

- 8. (Previously Presented) The method of claim 7, wherein N is 6.
- (Previously Presented) The method of claim 7, wherein Pu₁ Py₂ CpG Pu₃ Py₄ comprises phosphodiester bases.
- (Original) The method of claim 7, wherein Pu₁Py₂CpGPu₃ Py₄ are phosphodiester bases.
- 11. (Original) The method of claim 7, wherein $X_1X_2X_3$ and $X_4X_5X_6(W)_M(G)_N$ comprise phosphodiester bases.
- 12. (Original) The method of claim 7, wherein $X_1X_2X_3$ comprises one or more phosphothioate bases.
- 13. (Original) The method of claim 7, wherein $X_4X_5X_6(W)_M(G)_N$ comprises one or more phosphothioate bases.

- 14. (Previously Presented) The method of claim 7, wherein $X_1X_2X_3$ Pu_1Py_2 and Pu_3 Py_4 $X_4X_5X_6$ are self complementary.
- 15. (Original) The method of claim 7, wherein the opportunistic infection is a bacterial infection, a fungal infection, a viral infection, a protozoan infection, a prion disease, or a neoplasm.
- 16. (Original) The method of claim 7, wherein the opportunistic infection is infection with Leishmania.
- 17. (Original) The method of claim 7, wherein the opportunistic infection is salmonellosis, syphilis, neurosyphilis, turberculosis, atypical mycobacterial infection, bacillary angiomatosis, aspergillosis, candidiasis, coccidioidomycosis, cryptococcal meningitis, hepatitis B, histoplasmosis, cryptosporidiosis, isosporiasis, microsporidiosis, *Pneumocystis Carinii* pneumonia, toxoplasmosis, *Cytomegalovirus*, hepatitis, herpes simplex, herpes zoster, human papiloma virus, *Molluscum Contagiosum*, oral hairy leukoplakia, progressive multifocal leukoencephalopathy, Kaposi's sarcoma, systemic non-Hodgkin's lymphoma, or primary CNS lymphoma.
- 18. (Original) The method of claim 2, further comprising administering to the subject a combination of drugs which comprises a highly active anti-retroviral therapy (HAART).
- (Original) The method of claim 2, further comprising administering an antiretroviral drug.
- (Currently Amended) The method of claim [[2]] 19, wherein the anti-retroviral retroviral drug comprises 3'-azido-3'dexoy-thymidine (AZT).

Page 4 of 12

- 21. (Original) The method of claim 1, wherein the oligodeoxynucleotide comprises a sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16.
- 22. (Original) The method of claim 1, wherein the oligodeoxynucleotide is a K oligonucleotide that comprises a sequence represented by the formula:

wherein the central CpG motif is unmethylated, W is A or T, and N₁, N₂, N₃, N₄, N₅, and N₆ are any nucleotides.

- 23. (Canceled).
- 24. (Canceled)
- (Currently Amended) A method of increasing an immune response to an
 opportunistic infection with a pathogen in an immunocompromised subject, comprising
 selecting an immunocompromised subject; and

administering to the subject a therapeutically effective amount of an immunostimulatory D oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide,

wherein an antigenic epitope of a polypeptide <u>from the pathogen</u> is not administered to the subject.

thereby increasing the response to the opportunistic infection.

26. (Previously Presented) The method of claim 7, wherein the oligodeoxynucleotide has the nucleic acid sequence set forth as 5'XXTGCATCGATGCAGGGGGG 3' (SEQ ID NO: 1), wherein X is a G.

- 27. (Currently Amended) The method of claim $\underline{1}[[23]]$, wherein the oligodeoxynucleotide has the nucleic acid sequence set forth as SEQ ID NO: 177.
 - 28. (New) The method of claim 25, wherein the pathogen is Listeria.